

Course Name : Diploma in Textile Manufactures
Course Code : DTM
Semester : Fourth
Subject Title : General Engineering
Subject Code : 136TM41

Teaching scheme and Examination scheme:

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
3	0	0	3	80	32	20	100	40	-	-	-	-	-	-	100

Rationale:

The modern Textile mill is fully automised and different types of motors and other types of electronic devices are used. A student should have a good background in electrical and electronics. This subject also deals with the mechanical requirements of textile mills.

Objectives:

Section I of course gives the student an insight into different types of motors, Transformers, CRO, Diodes, Transistors, SCR, Triac, Microprocessor and electronic control. Section II includes steam, steam boilers, Condensers, Compressors, A. C plants, Humidification and drives to the machine.

Syllabus

Sr No	Topic	Contents	Hours	Marks
Section I				
1	AC Fundamentals	A.C. fundamentals :-terms and defination of AC quantities .Serial ,parallel A.C. circuits and RLC resonant circuit.	03	06
2	DC Machines	Introduction to D.C. Machines , D.C .generator- construction ,working principle ,classification and applications for textile. D.C.Motors- construction ,working principle , classification and applications for textile. Speed control of D.C .motors and D.C.motor starter.	10	12
3	AC generator/Alternator	Production of single phase-3 phase AC. Measurement of active and reactive power In AC circuit. Two Wattmeter method of power measurement	05	10

4	Basic Electronic devices	Definition:- Doping, P-N type of Semiconductor. Diode Forward bias, reverse bias characteristics. Diodes- classification and zener diode as regulator. Transistor-BJT, UJT , FET type, input-output characteristics. Biasing method, cutoff, active & saturation regions. Special semiconductor Devices SCR, Triac, Diac.	04	08
5	Digital electronics	Logic Gates, fundamentals of binary number systems, conversion of number systems and problems.	02	05

Section II

6	Steam	Properties of steam, Wet, Dry and Super heated steam. Use of steam tables, Dryness fraction. Applications of steam in Textile industries.	05	08
7	Steam Boilers	Steam Boiler construction and use of any one type of oil fired boiler, Package Boilers, Boiler Specifications, Boiler performance- Boiler efficiency and equivalent evaporation, Applications of steam in power generation and process industries, Efficient distribution and utilization of steam	05	08
8	Pumps	Pumps- Different types of pumps and their applications in Textile industry.	02	04
9	Condensors	Condensors – Types of condensers and its applications in textile industry.	02	04
10	Air conditioning and humidification	DBT, WBT, DPT, Humidity Ratio, Relative humidity, Methods of humidification in Textile Mills. Methods of Refrigeration, Air conditioning units	06	08
11	Compressors	Air Compressors, Various types of compressors, Specifications of Compressors	02	04
12	Power Transmission Devices	Selection of belts – Flat, V- belt. Types of gear and its applications. Types of conveyors.	02	04
		Total	48	80

Text books:

1. Fundamentals of Electrical engineering and electronics, By B. L. Theraja , S.Chand & Company, 2009.
2. Electronics by V. K. Mehta, S. Chand & Company, 2007
3. Electronic Controls for Textile Machinery- NCUTE by Hiren Joshi, Gouri Joshi, A. K. Gupta
4. Textile Robotics and Automation By Mahadevan , Abhishek Publication First edition, 2012
5. A Textbook of Thermal Engineering by R. S. Khurmi and J. K. Gupta, S. Chand and Company, New Delhi

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Four
Subject Title : Yarn Manufacture-II
Subject Code : 136TM42

Teaching and Examination Scheme:

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
4	-	3	3	80	32	20	100	40	50	20	-	-	25	10	175

Rationale:

The subject covers detailed study of important processing machines like drawframes, roving frame and ring frame. The subject includes the concepts involved and the modern developments. The processing of long staple fibres is also included.

The subject also covers a detailed study of the final stages of spinning i.e Roving frame used as intermediate step in drafting the material and ring frame for spinning the yarn to required count.

Objectives:

- Learn in detail, the attenuation process.
- Learn in detail the yarn manufacturing stages i.e production of roving and yarn.

Syllabus

Part I:- Theory

Sr No	Topic	Contents	L	M
Section I				
1	Drafting-Introduction	1.1 Introduction to draw frame. Principles and objects of doubling, drafting, blending and dust removal on draw frame. 1.2 Operating principle and devices – Creel, drafting arrangements, suction systems, coiling and autolevelling. 1.3 Shore hardness of the synthetic cots, their effects on the material being processed and their maintenance. Stop motions.	12	20
2	Roller setting and developments on drawframe	2.1 Roller settings and weightings. Faults in drafting process, its effects and remedies. 2.2 Principles of various high drafting systems and roller weighing arrangements in draw frame.	10	10

		Developments in draw frame. 2.3 Processing of wool. Concept of gilling and the working of a gill.		
3	Calculations	3.1 Calculations related to settings, speeds and draft. 3.2 Production calculations on draw frame.	10	10
Section II				
4	Introduction to the speed frame and the ring frame.	4.1 Principles, objects and construction of speed frame, study of working parts. Concept of flyer and bobbin leading frames. 4.2 Concept of Twisting and winding and functions of building mechanism, differential motions, swing motions on speed frame. 4.3 Construction and working of conventional ring frame. Study of different types of creels, drafting arrangements, traverse motions, thread guides, separators, ring and traveller, spindles.	12	20
5	Detailed study of speed frame and ring frame with latest developments	5.1 Change places for processing different cottons and hanks on speed frame. Important features of modern speed frames. 5.2 Detailed study of the rings and travellers. 5.3 Study of modern ring frame. Moving lappets and balloon control rings. Machine imperfections such as roller vibrations, roller slip, roller eccentricity.	10	10
6	Calculations on speed frame and ring frame	6.1 Calculations related to speed, draft, production and bobbin speed on speed frame. 6.2 Calculations related to speeds, drafts, twist and production in ring spinning.	10	10
		Total	64	80

Part II: - Practicals

List of laboratory experiments:

- 1 To study general construction to familiarize with different parts on the draw frame to study gearing diagram and speed calculations and passage of cotton.
- 2 A) To set the drafting rollers on draw frame

B) To study the weighing arrangements on the rollers and study of various stop motions of the draw frame. To compare Lakshmi-Rieter (LR-DO2) draw frame with

conventional draw frame

- 3 To study the passage of cotton through speed frame. To study the gearing diagram on speed frame and calculations regarding speed, draft, production, change places, etc.
- 4 A To study the sun and planet differential motion on speed frame. B To study the swing motion and cone drum construction
- 5 To study the building mechanism on speed frame.
- 6 To study the passage of cotton through ring frame. To study the gearing diagram on the ring frame and calculations regarding speed, draft, twist, production, change places etc.
- 7 To study setting of lappets, setting of ring rail, spindle gauging and thread wire setting.
- 8 To study the chain building mechanism on ring frame.
- 9 A To study the lappets, rings, travellers and spindles on ring frame. B To study the modern drafting systems on ring frame.

Learning Resources:-

Text Book:

- 1 A practical guide to Combing and Drawing-Volume 3, by Werner Klein, The Textile Institute, First Edition- 1987.
- 2 Elements of carding and drawframe, by Dr A R Khare, Published by Sai Book Centre, Mumbai, First Publication 1999.
- 3 A practical guide to Ring Spinning-Volume 4, by Werner Klein, The Textile Institute, First Edition- 1987.
- 4 Elements of ring frame and doubling, by Dr A R Khare, Published by Sai Book Centre, Mumbai, First Publication 2000.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Four
Subject Title : Fabric Manufacture-II
Subject Code : 136TM43

Teaching and Examination Scheme:

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
4	-	3	3	80	32	20	100	40	50	20	-	-	25	10	175

Rationale:

The ornamentation of fabric is done by the constant variation in number of warp threads in the top and bottom lines of shed in successive picks, so as to conceal certain threads to form an effective pattern on the face or back of the fabric. This is accomplished by means of Dobbies and Jacquard.

The ornamentation of fabric is also done by the introduction of more than one colour, count or quality in the warp or weft or both. The ornamentation in the weft is done by means of multiple box motion.

This subject intends to impart knowledge and skills in the area of ornamentation of fabrics when the fabric is manufactured by the use of Dobbies, Jacquard and multiple box motion.

Objectives:

- Learn weaving using dobby and jacquard.
- Learn Automatic weaving and weft patterning methods

Syllabus

Part I:- Theory

Sr No	Topic	Contents	L	M
Section I				
1	Dobby	1.1 Scope and limitations 1.2 Types of Dobbies 1.3 Keighley dobby – its working, construction setting. 1.4 Different methods of pegging lags Dobby pattern pegs and lags 1.5 Development in dobbies- cam dobby, paper cam dobby, their construction and working. 1.6 Features of Modern electronic dobbies, 1.7 Staubli electronic cam dobby, their construction, working and settings.	10	16
2	Jacquard	2.1 Scope and limitations. 2.2 Different parts of jacquards and their importance. 2.3 Principle and working of jacquards (Single lift	14	24

		<p>single cylinder, Double lift single cylinder, Double lift double cylinder) and their limitations. Drive to the jacquard</p> <p>2.4 System of harness mounting,</p> <p>2.5 Different types of harness ties,</p> <p>2.6 Piano card cutting machine.</p> <p>2.7Casting out in jacquards</p> <p>2.8Modern fine pitch and course pitch jacquards, their construction and working.</p> <p>2.9Double cloth jacquard its working and construction</p> <p>2.10 Cross border Jacquard its working and construction</p> <p>2.11Introduction to electronic jacquards, Eletronic jacquards- its construction, working and settings. Modern features of electronic jacquards</p>		
Section II				
3	Automatic Weaving	<p>3.1 Classification of looms – Automatic looms and Non-automatic looms , Types of automatic looms – Cop changing looms and shuttle changing looms, Salient features and requirements advantages of automatic looms. Compare cop changing over shuttle changing mechanism.</p> <p>3.2 Types of feelers – Mechanical, Electrical, Optical and Electronics type, Working and construction of Mechanical, Electrical, Optical and Electronics feelers.</p> <p>3.3 Automatic weft replenishment -Pirn changing mechanisms – Northrob, Ruti Pirn changing mechanism on automatic loom its construction and working, Battery setting</p> <p>3.4 Automatic Let- off motion- Working, construction of Bartlett, Ruti, Roper, Semi- positive let- off motion its working and construction</p> <p>3.5 Study of different types of warp stop motion its working and construction – Mechanical and Electrical warp stop motion. Northrob warp stop motion, its working, construction and setting.</p>	16	28
4	Weft patterning	<p>4.1Conventional methods of weft patterning and their limitations,</p> <p>4.2Cowburn and pecks multiple box, its construction and working. Different types of multiple box mechanisms, card saving device,</p> <p>4.3 Simple pattern chain and problems based on the pattern chains</p> <p>4.4Weft patterning on modern shuttleless machines, their construction, working and advantages.</p>	8	12
		Total	48	80

Part II: - Practicals

List of workshop experiments

1. To study Keighley Dobby – construction, working, timing and setting of keighly dobbie
2. To study cam dobbie – construction, working, timing, pick-finding device.
3. To study single lift single cylinder jacquard, Double lift single cylinder jacquard and double lift double cylinder Jacquard.
4. To study cross-border jacquard and Double cloth Jacquard
5. To study Cowburn and Peck box motion – construction, working, timing, setting, card saving device
6. To study Northrop 2x1 weft mixing box motion.
7. To study Pick –at – will mechanism on Zang loom.
8. To study drop-box motion on Zang loom.
9. To study pegging lattices and paper card punching.
- 10 To study Jacquard card punching and lacing techniques.
- 11 Study of: Sow box, Drying cylinder, Steam trap, Measuring and marking motion and drive to the sizing machines

Learning Resources:-

Text Books:

1. Fancy weaving Mechanism by K T Aswani, Mahajan Publishers, 1990
2. Principles of weaving by R. Marks, A. T. C. Robinson, The Textile Institute, Manchester, 1976
3. Weaving- Mechanism and Management by Talukdar, Sriramulu and Ajgaonkar, Mahajan Publishers Pvt. Ltd., Ahmedabad, 1998.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fourth
Subject Title : Textile Physics-I
Subject Code : 136TM44

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	-	3	3	80	32	20	100	40	-	-	25	10	25	10	150

Rationale:

The subject covers information about textile fibres, their structural and physical properties like length, fineness, tensile property etc. along with experimental methods to determine them. The knowledge of these topics are very much useful in process control and testing of textile fibres to control yarn and fabric properties.

Objectives:

- Learn the various testing methods for the measurement of the fibre properties.
- The student must be able to measure the properties and draw an appropriate conclusion.

Syllabus

Part I:- Theory

Sr No	Topic	Contents	Hours	Marks
Section I				
1	Introduction to fibres	Fibre quality and grading of cotton, trash content determination, staple length and commercial assessment of fibres (information about Other natural fibres in brief).	03	06
2	Standards	Testing quality schemes like wool mark, ISE mark and ASTM standard.	04	06
3	Elements in Statistics	Sampling of fibres before testing (need and methods), significance of statistics (mean, mode, median, S.D., C.V., etc.)	05	06
4	Statistics in testing	Comparison of frequency distribution, normal distribution, significance test, t-test, level of confidence.	06	06
5	Moisture in fibres	Moisture in fibres-moisture content, regain, commercial regain, hysteresis, estimation of moisture, moisture meter (Shirley and others), effects of regain on fibre properties, control of atmospheric conditions while testing.	06	16
Section II				
6	Fibre length	Fibre length and its variability measurement,	06	10

	measurement	cumulative frequency diagram, fibre length distribution and weight distribution curves, single fibre length measurement, fibre sorter methods and analysis of sorter diagrams and measurement of dispersion, short fibre % (Baer sorter, Uster sorter, all method, Shirley photoelectric stapler, fibro graph and measurement of length irregularity parameters.		
7	Fibre fineness	Fibre fineness-importance and measurement methods- gravimetric, Optical, Vibroscope. Air flow methods of fibre fineness determination principle and instruments- WIRA, Micronaire.	06	10
8	Fibre maturity	Maturity of cotton –maturity ratio, maturity count, standard fibre weight per unit length, degree of thickening, methods of measurement – air flow, NaOH-swelling, dye methods, polarizing light methods	06	08
9	Tensile testing of fibre	Tensile testing of fibres-definition of different terms- elasticity, specific stress, tenacity, yield point, work of rupture, work factor etc. Analysis of load-elongation and stress-strain curves of different fibres and relations with their structure. C.R.T., C.R.L., C.R.E.-principles and machine used for single fibre and bundle of fibre strength testing.Pressley and Stelometers with their Principles.	06	12
		Total	48	80

Part II: - Practicals

List of Laboratory Experiments:

- 1 Fibre length and length irregularity parameters by Baer sorter.
- 2 Fibre weight / unit length.
- 3 Shirley analyser-trash content determination.
- 4 Digital Fibrograph.
- 5 Single Fibre Strength on Instron.
- 6 Stelometer-bundle strength (fibres)
- 7 Pressley-bundle strength (fibres).
- 8 Convolutions and ribbon-width of cotton fibres.
- 9 Fibre identification and measurement of diameter of fibres.
- 10 Fibre fineness by WIRA
- 11 Cotton fibre maturity (NaOH method)

Learning Resources:-

Text Books:

- 1 Principles of textile testing - J.E.Booth,Butterworth Publication.
- 2 Textile Testing - P.Angappan

References:

- 1 Engineering Physics - R.K.Gaur and S.L.Gupta - Daupat Rai and Sons.
- 2 Handbook of textile testing by Grover and Hambey,John Wile Eastern Pvt. Ltd., New Delhi.

- 3 American Cotton Handbook edited - D.D. Hamby, Interscience Publishers, John Wiley Publication
- 4 Manual of Cotton Spinning Vol.-II, part I, Characteristic of Raw Cotton.- E.Lord.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fourth
Subject Title : Textile Chemistry-II
Subject Code : 136TM45

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme												Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork			
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min		
3	-	3	3	80	32	20	100	40	50	20	-	-	25	10	175	

Rationale:

This subject deals with introduction to dyes, printing and finishing. It covers dyeing processes for natural as well as synthetic fibres. Also study of printing techniques and styles is incorporated in this. Also this includes different machinery for dyeing, printing of the textile materials. Finishing the last step of value addition is very important in this process sequence. This subject deals with the study of different finishes.

Objectives:

- Dyes study, dyeing processes
- Methods and styles of printing
- Different finishes

Syllabus

Part I:- Theory

No	Topic	Contents	L	M
Section I				
1	Dyes	Classification of Dyes. Principles of dyeing of natural fibres like cotton with direct, reactive, vat, sulphur, Principles of dyeing wool/silk with acid, wool with acid, basic, metal complex and acid mordant dyes, Polyester with disperse dyes, Nylon with acid dyes and acrylic with basic dyes.	12	15
2	Dyeing machinery	Different dyeing machines for natural and synthetic fibres like jigger, jet dyeing machine, soft flow dyeing machine	07	10
3	Printing	Different methods of printing, Styles of printing, Ingredients of a printing paste, Importance of each ingredient, Direct style of printing with direct and reactive dyes. Printing of synthetics with disperse dyes, pigment printing Printing machines Flat bed, Rotary Screen printing machines, Transfer printing	08	15
Section II				
4	Finishing	Classification of finishes, starching, calendaring, water repellency, flame retardency, water proofing, crease recovery, dimensional stability (Principle,	15	24

		Working, Chemicals)		
5	Garment finishing	Brief outline of garment finishing. Different chemicals used and garment finishing machine. Enzyme washing (Biowashing) of garments	3	6
6	Testing	Testing of colour fastness of dyed and printed goods (Washing, Rubbing, Perspiration), Finishing efficiency of different finishes.	6	10
		Total	48	80

Part II: - Practicals

List of laboratory experiments:

- 1 Dyeing of cotton with Direct dye and aftertreatments
- 2 Dyeing of cotton with cold brand reactive colours
- 3 Dyeing of cotton with hot brand reactive colours
- 4 Dyeing of cotton with vat dye
- 5 Dyeing of cotton with sulphur dye.
- 6 Dyeing of wool, silk with acid dye.
- 7 Dyeing of polyester with disperse dye
- 8 Dyeing of nylon with acid dyes
- 9 Dyeing of acrylic with basic dyes
- 10 Testing of washing fastness, rubbing fastness

Learning Resources:-

Text Books:

- 1 Technology of dyeing-By Dr. V.A.Shenai, Sevak Publications, Mumbai, 1st edition, 1984
- 2 Technology of printing -By Dr. V.A.Shenai, Sevak Publications,Mumbai, 1st edition, 1990
- 3 Technology of finishing -By Dr. V.A.Shenai, Sevak Publications, Mumbai, 2nd edition, 1990

References :

- 1 Chemistry of fibres- Dr.V.A.Shenai, Sevak Publications, Mumbai, 1st edition, 1971
- 2 Introduction to Textile finishing - J.T. Marsh, Chapman and Hall, 1st edition, 1984
- 3 Principles and experimental dyeing- Dr. V.A. Shenai, Sevak Publications,Mumbai, 1st edition, 1993

Course Name : Diploma in Textile Manufactures
Course Code : DTM
Semester : Four
Subject Title : Computer Aided Textile Design
Subject Code : 136TM46

Teaching scheme and Examination scheme:

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
0	0	2	-	-	-	-	-	-	-	-	-	-	50	20	50

Rationale:

The subject explores the aesthetic concept of the student with the aim of developing his creative capabilities. The properties of colour are investigated with the emphasis given on the use of colour as a tool for visual organization. To develop their technical knowledge and creativity for solving design problems and formulating new design concepts for textile products. This subject involves use of software for producing computer aided textile designs.

Objectives:

- Introduce the students to design and colour theories.
- To create awareness of computer in the textiles for designing

Syllabus

Part I:- Theory

No	Topic	Contents	L
1	Design	1.1 Elements and principles of design, units of design, natural, conventional and abstract forms. 1.2 Study of Indian traditional designs and its characteristics Pertaining to textiles. 1.3 Study of base designs- square, rectangle, diamond half drop, ogee and satin base arrangements. Composition of patterns and conditions to be observed in designing figured fabrics.	10
2	Colour	2.1 Colour theory-additive and subtractive, modification of colours, Attributes of colour-hue, value chroma contrast-simultaneous and successive. Principles of colour harmony-chromatic, achromatic, monochromatic, analogous, complementary, triad characteristics and visual associations of colour. 2.2 Guidelines for obtaining good colour harmony. Factors influencing apparent change of colour in woven and printed designs.	10

3	Computer aided Textile design	Photoshop and practicals based on software available	12
		Total	32

Assignments:

- 1 Drawing and painting patterns derived from nature and conventionalizing these forms (1 design) ,Colour theory (2 designs), Colour Harmony (4 designs), Colour wheel (1 design)
- 2 Preparation of suiting, shirting, dress material and sari border designs (18 designs) All over design for jacquard-artist design-point paper design, woven fabric sample (3 designs) (practical work carried out during the term should be submitted in portfolio)
- 3 Experiment based on software available.

The students will create designs based on the above and shall submit them for term-work.

Course Name : Diploma Engineering Textile Manufactures
Course Code : DTM
Semester : Four
Subject Title : Development of Life Skills
Subject Code : 136HM47

Teaching and Examination Scheme:

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	P	T		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
0	2	0	-	-	-	-	-	-	-	-	-	-	25	10	25

Rationale :

Anyone aspiring for professional success in various fields of technology and management has to make a quick and lasting impact on the employers at different levels of his/her career. Effective communication skills is a necessity today and a mastery of both productive skills and managerial skills will enable students, job seekers and technologists in industry to realize their goals of entering either a prestigious institution or getting a coveted job. Their oral skills will enable them to perform better during interviews, group discussion, and presentation and while delivering speeches. Presentation skills will give the students confidence, foster team spirit and enhance their power of expression which will be helpful for them in future while holding seminars and conferences. Further, all competitive exams are exacting and require students to be proficient in the written form. All writings in industries and management require responsible and formal communication. Powerful written communication is possible only by understanding the basics of various kinds of formal writing like summaries and resume. Ability to write honest and impressive resumes is imperative in order to secure a job of one's choice. In addition, managerial skills like time management, body language and positive thinking will shape their personality and enable all round development.

Thus it can be concluded that efficacious communication in verbal and nonverbal form is indeed the sure gateway to success in the professional world.

Objective:

1. To train students in overcoming stage fright, to attain composure, to organize thought process and develop voice modulation and body language.
2. To develop students' interpersonal skills and leadership quality, to improve their listening and persuasive skills, and train them in the ways of identifying the source of information, collecting and planning.
3. To prepare students for interview, make them aware of personal grooming and concept of time, to teach students positive thinking as an ongoing process, to have optimistic approach, to cultivate right values and attitude.

LEARNING STRUCTURE:

Application:

To enable the students to communicate effectively through oral communication and presentation skills

Procedures:

1. Techniques of communicating confidently
2. Principles governing the appropriate use of verbal communication
3. Techniques of effective speaking

Principles:

1. Principles of management in communication skills
2. Principles of appropriation and contextualization of the use of non-verbal communication

Concept:

1. Concept of oral and written skills
2. Concept of manners, etiquette and personality development
3. Concept of time management and interview techniques

Facts:

1. Theory of communication
2. Theory of oral skills
3. Formats of resume and summarization

SYLLABUS

Sr. No.	Topic	Hours
1	Oral Skills and Writing Skills Elocution Group Discussion Presentations Technical paper presentation Planning and preparing for an industrial visit Written report on an industrial visit	4 4 6 2 2 2
2	Managerial Skills Interview Techniques Resume Time Management Manners & Etiquette Personality Development Positive thinking and value addition	2 2 2 2 2 2
	Total	32
03	Practicals: 1. Students deliver a prepared speech. 2. Group discussions conducted in class 3. Group of 6-7 students make a power point presentation 4. Assignments on resume writing 5. Mock interviews in class 6. Role play by students.	

Term Work- Students should submit term work file based on above topics.

Skills to be developed for practical:

Intellectual Skills:

1. Skills of elocution
2. Collecting and summarizing information
3. Drafting and presenting

Motor Skills:

1. Use of appropriate body language and oral skills

Text Book:

1. Business Communication- Raman Meenakshi, Oxford, India, First edition, 2008

Reference Books:

1. Contemporary Management, Gupta C. B., APH, New Delhi, First edition, 1992
2. Organisational Behaviour, Sekaran Uma, Tata Mcgraw Hill, New Delhi, Second edition, 2008
3. Technical Communication, Raman Meenakshi, Sharma Sangeeta, OUP, India, Second impression, 2004

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Yarn Manufacture III
Subject Code : 136TM51

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
4	-	3	3	80	32	20	100	40	-	-	25	10	25	10	150

Rationale:

This subject unconventional / new spinning systems like open-end spinning, air jet spinning, friction spinning etc. It also covers the manufacturing methods, machines involved and properties of doubled and fancy yarns.

Objectives:

- Familiarize with the methods of spinning other than ring spinning.
- Learn doubling of yarns
- Learn the various types of fancy yarns

Syllabus

Part I:- Theory

Sr No	Topic	Contents	L	M
Section I				
1	Doubled yarns	1.1 Brief study of doubling process. Wet and dry doubling methods. Physical properties of doubled yarns. Effect of direction and amount of twist on properties of doubled yarns. Concept of balanced twist-special doubled yarn products, their manufacturing and requirements. 1.2 Brief study of T.F.O. Conditioning of yarns – Various methods, objects. Singeing of yarn – Various methods, precautions required in the process.	10	12
2	Fancy yarns	2.1 Principles of Fancy Doublers. Requirement of various mechanisms in the machine for producing fancy yarns. 2.2 Various methods of fancy yarn production. Production of gimp yarns, slub yarns, loop yarns, snarl yarns and chenille yarns.	11	14

3	Calculations for doubled and fancy yarn production.	3.1 Calculations twist, production, resultant count etc. for doubled yarns. 3.2 Calculations of requirement of component yarns in the production of fancy yarns.	11	14
Section II				
4	New Spinning Systems- Open end and False twist process.	1.1 New spinning processes. Introduction and their advantages and limitations Comparison with ring spinning. Concept of open-end spinning. Concepts and working of Electrostatic spinning, Friction spinning, Disc spinning and Vortex spinning. 1.2 Concept of false twist. Principle and working of Air-jet spinning and DREF 3.	10	12
5	Other unconventional spinning processes	2.1 Unconventional spinning processes. Brief concepts and working of twist spinning, spinning by the rubbing technique, wrapping process. 2.2 Adhesive and the felting process. Comparison of the yarn properties spun by the new spinning systems with the ring spun yarns.	11	14
6	Rotor spinning	3.1 Construction and working of the rotor spinning machine. Raw material requirements and preparation. 3.2 Detailed study of the rotor and the navel. Processing of raw material in open-end rotor spinning and selection of process variables. Comparison of rotor spun yarns with ring spun yarns.	11	14
Total			64	80

Part II: - Practicals :

List of Workshop Experiments:

- 1 Study of passage of material in dry and wet doubling frame, general construction of the frame.
- 2 To calculate speed, twist and production on the doubling frame.
- 3 To study two for one twister.

- 4 Drive and calculations related to TFO.
- 5 To study the different mechanisms used in the production of fancy yarns.
- 6 Study of O.E. spinning, drive and calculations related to rotor machine.

Learning Resources:-

Text Books:

- 1 New Spinning Systems-Volume 5, by Werner Klein, The Textile Institute, First Edition- 1987.
- 2 Essential elements of practical cotton spinning, by T K Pattabhiram, Published by Somaiya Publications Pvt Ltd, Second Edition 1978, Re-print in 1986.
- 2 Elements of ring frame and doubling, by Dr A R Khare, Published by Sai Book Centre, Mumbai, First Publication 2000.
- 4 Fancy Yarns: Their Manufacture and Application, R H Gong and R M Wright, UMIST, UK
Woodhead Publishing Ltd, October 2002.

References:

- 1 Two for one, Technology and Technique for Spun Yarns – H.S.Kulkarni & Dr.H.V.S.Murthy.
- 2 Spun Yarn Technology – Eric Oxtoby, Published by Butterworths and Co(Publishers) Ltd, First edition 1987.
- 3 Fundamentals of spun yarn technology, by Carl A Lawrence, CRC Press, Woodhead Publishing Ltd, First Edition 2003.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Fabric Manufacture III
Subject Code : 136TM52

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Term work		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
4	-	3	3	80	32	20	100	40	-	-	25	10	25	10	150

Rationale:

It covers unconventional weaving methods like Projectile, Rapier, Air jet and Water jet, Circular looms. It also covers study of filament weaving, weaving of slit filament.

Objectives:

- Learn in details the shuttleless weaving techniques.

Syllabus

Part I:- Theory

Sr No	Topic	Contents	L	M
Section I				
1	Unconventional weaving	1.1 Quality of yarn and weaving preparatory weaving required for shuttleless looms.	04	06
2	Shuttleless Looms	2.1 Introduction 2.2 weft velocity, Weft speed, Comparison of various weft insertion systems, weft curves 2.3 Weft storage units – types , necessity, Calculations related to weft accumulators 2.4 Selvedges – Basic function, requirement of selvedges. Types and mechanism used on unconventional loom	08	10
3	Projectile loom	3.1 Principle of weft insertion on projectile 3.2 Features and advantages of projectile loom 3.3 Transfer of weft from the projectile feeder to the projectile 3.4 Projectile picking mechanism and its construction and working 3.5 Sequence of weft insertion 3.6 Beat up mechanism and its construction and working 3.7 Loom timing for projectile loom 3.8 Weft tension variation on projectile weaving machine 3.9 Calculations related to Tarque ,	12	14

		Workdone and weft insertion rate on projectile weaving machine		
4	Filament weaving	4.1 Introduction 4.2 Weaving preparatory and weaving requirements of polyester blended yarns 4.3 Weaving preparatory and weaving requirements for Multifilament yarns and Monofilament yarns and slit yarn	08	10

Section II				
5	Rapier loom	5.1 Principles of weft insertion 5.2 Classification of rapier weaving machines 5.2.1 Two phase weft Insertion 5.3 Method of weft insertion for Dewas and Gabler system 5.4 Classification, Tip to tip and loop transfer, Rapier drives. 5.6 Rapier drives on different looms 5.7 Calculations related to rapier machines	12	14
6	Airjet Loom	6.1 Principles of weft insertion 6.2 Working and construction of Maxbo Murata airjet loom 6.3 Sequence of weft insertion on Maxbo murata airjet loom 6.4 Air requirements 6.5 Air jet Main nozzles, relay nozzles 6.5.1 Confuser 6.5.2 Methods of airjet control 6.6 Loom timing on airjet loom 6.6 Fabric defects on airjet loom	10	12
7	Water Jet Looms	7.1 Principle, 7.2 Yarn path on water jet loom 7.3 Merits and demerits of water jet loom 7.4 Quality of water for water jet looms 7.5 Picking motion on water jet loom 7.6 Loom timing on water jet loom 7.7 Factors affecting weft insertion system	06	08
8	Circular weaving	8.1 Passage of warp through circular weaving 8.2 Shedding, Picking and beat up mechanism on circular loom	04	06
		Total	64	80

Practicals :

List of Workshop Experiments:

1. Loom Erection – dismantling of various parts & motion.
2. Loom Erection – Assembly of various parts.
3. Loom Erection – Tuning of various motion, running the loom with shuttle but without warp.
4. Loom Erection – Beam gaiting on loom, Weaving of fabric.

5. To study working and construction of Airjet loom.
6. To study working and construction of Rapier loom.
7. To study Non-woven machine
8. Fabric Analysis

Learning Resources:-

Text Books:

1. Principles of weaving by R. Marks, A. T. C. Robinson, The Textile Institute, Manchester, 1976
2. Weaving- Mechanism and Management by Talukdar, Sriramulu and Ajgaonkar, Mahajan Publishers Pvt. Ltd., Ahmedabad, 1998.
3. Shuttleless looms II by P. A. Katwani and A. Gupta, NCUTE, Department of Textile Technology, 1999.

References:

1. Weaving Technology and Operations by Allan Ormerod and Walter S. Sondhelm.
2. Filament Weaving, NCUTE Publication, 2000

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Nonwoven & Knitting
Subject Code : 136TM53

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	-	-	3	80	32	20	100	40	-	-			-	-	100

Rationale:

The subject deals with manufacturing techniques and properties of different types of non-woven fabrics. These topics are essential to the students to understand the selection of a particular type of nonwoven for a specific application

Syllabus

No	Topic	Contents	Hours	Marks
Section I				
1	Introduction to Nonwovens	Introduction, definition, Properties, Classification of Nonwovens Raw-materials fibres, binding agents	2	2
2	Web formation techniques	Parallel laid webs, Cross laid webs, Random laid webs, Air laid webs.	4	6
3	Web bonding techniques	Thermal bonding – Hot calendaring – area bonding, point bonding and Embossing, Belt Calendaring, through air, Ultrasonic bonding Chemical (Adhesive) bonding – Bonding Process, bonding methods - Saturation, Foam, Spray, Print and powder bonding and applications. Spun-bonding – Principles, Physical properties of spun-bonded fabrics Spunlace nonwovens (Hydroentanglement) - Process Properties of spun-lace fabrics, Applications Melt-blown nonwovens –Properties and Applications	8	14
4	Needle Punched Nonwovens	Needle Punching looms – up-punching, Down Punching, Single needle board, Multi-board Needling Parameters, Needle Board parameters, Needle type and specifications Production techniques – Continuous, Off-line final needling, Factors affecting production Major applications: Floor covering, Domestic Blankets, Industrial belts	6	10
5	Finishing of Nonwovens	Dry Finishing – Shrinkage, Wrenching, Creeping, Crabbing, Calendaring and Crabbing, Splitting, Singeing Wet Finishing – Washing, Dyeing, Printing Chemical Finishes – Antistats, Antimicrobials, Water repellents, UV absorbers, Flame retardants, Absorbency and rewetters, Soil-release Nonwoven defects	4	8

		Section II	Lecture Hours	Marks
6	Introduction to knitting	Introduction: Properties of Knitted Fabrics Comparison of woven and knitted, Terms and Definitions, Classification of Warp and Weft knitting machines, Comparison of Warp and Weft knitting Knitting Needle Types: Needle Types - Latch needle, Bearded Needle, Compound needle, Advantages and disadvantages of different needles	5	8
7	Weft knitting structures	Weft Knit Structures: Symbolic representation, Features and Properties of Plain Single Jersey, Rib-, Interlock and Purl knit structure Designing of Weft Knit Structures Ornamentation of Plain-knit Fabrics Derivatives of plain knit (Single Jersey) – Knit and float, knit and tuck, knit, float and tuck	5	10
8	Weft knitting machines	Weft Knitting Machines Plain Single Jersey knitting machine – Knitting Elements - Cams, Cylinder, Feed yarn carriers, Take-up mechanisms; Operation Cycle – Clearing, Feeding, Knitting Position Circular Rib knitting machine – Operation Cycle – Rest, Clearing, Feeding, Knitting Position Circular Interlock knitting machine– Operation Cycle Purl knitting machine – Operation Cycle	8	12
9	Warp knitting machines	Warp Knitting Machines Classification –Tricot Machine, Raschel Machine – Main Parts, Knitting elements, Knitting cycle Comparison of Tricot and Raschel Machines and Fabrics	4	6
10	Fabric defects	Fabric Defects: Warp and Weft knit Production calculation	2	4
		Total	48	80

Learning Resources:-

Text Books:

- 1 Introduction to Nonwovens Technology. By Subhash K. Batra, Nonwovens Cooperative Research Center, North Carolina State University
- 2 Needle-punching – A. T. Purdy, Textile Institute, Monograph series No. 3
- 3 Knitting Technology – Prof. D. B. Ajgaonkar
- 4 Knitting – By Anbumani

References:

- 1 Handbook of nonwovens, Woodhead Publishing
- 2 Nonwoven Bonded fabrics, J. Lunenschloss & W Albrecht, John Wiley & sons
- 3 Knitting Technology by Marks and Spencer.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Textile Physics II
Subject Code : 136TM54

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Pract.		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
3	-	3	3	80	32	20	100	40	50	20	-	-	25	10	175

Rationale:

This subject covers the topics on yarn and fabric properties and their measurement methods. Study of important features of yarn like twist and its effect on yarn properties and fabrics like cover factor, air permeability, T I V stiffness drape etc are very much useful. At the same time yarn and fabric tensile properties and fabric bursting, tearing strength etc control the final product.

Objectives:

- Testing of yarns and fabrics.
- The students must be able to carry out the tests on yarns and fabrics and provide appropriate conclusions.

• **Syllabus**

• **Part I - Theory**

Sr No	Topic	Contents	L	M
Section I				
1	Measurement of yarn number	Properties of staple and filament yarns: Yarn dimensions- yarn numbering systems (direct and indirect measurement and interrelationship) Resultant count of folded yarns, yarn count and yarn diameter relation, single, plied and cable yarns.	04	06
2	Yarn twist	Yarn twist, twist factor, yarn contraction and retraction factor, twist and yarn structure optimum twist, effect of twist on fabric properties sampling and measurement of twist of yarn by different methods.	04	08
3	Yarn evenness	Yarn evenness testing by gravimetric method, visual examination and electronic capacitance (Uster) method and analysis. Yarn hairiness testing	06	10
4	Testing of textured yarns	Texture yarn – types, special features, uses, determination of crimp contraction, crimp rigidity and crimp stability etc. Properties of poy yarn and their measurements Dynafil, Statimat.	06	08
5	Tensile testing of yarns	Tensile properties of yarns – lea strength, CSP, work of rupture, single thread strength and elongation.	04	08
Section II				
6	Moisture in fabrics	Moisture in fabrics- moisture content estimations by gravimetric or electrical method (Shirley moisture	03	08

		meter) need for moisture control while testing.		
7	Testing of fabrics	Fabric dimensions & properties need for fabric testing sampling before testing, measurement of fabric dimensions. Fabric wt/unit area, wt/unit-length, threads per unit length in woven fabric, different methods measurements, crimp of yarn in fabrics, its measurements and effect of crimp control on fabric properties.	07	10
8	Cloth cover and other handle properties	Cloth cover factor, air-permeability, porosity of fabrics, their interrelationship and measurement instruments. Fabric stiffness, drape, handle, crease recovery, serviceability and abrasion resistance, wear, pilling of fabrics etc T I V & thermal conductivity.	07	12
9	Tensile testing of fabrics	Tensile properties of fabrics fabric strength, fabric assistance, tearing strength and fabrics instruments used for all these tests.	07	10
		Total	48	80

Part II: - Practicals

List of Workshop Experiments:

- 1 To Study Measurement of count, lea , csp.
- 2 To Study Measurement of tex no, calculation of conversion factors (tex-count)
- 3 To Study Javeri twist tester
- 4 To Study Henry Baer twist tester
- 5 To Study Work of rupture of lea
- 6 To Study Work of rupture of fabric
- 7 To Study Single thread breaking strength tester
- 8 To study breaking strength and elongation of fabric
- 9 To study determination of fabric parameters and porosity
- 10 To study Bending length – stiffness of fabrics
- 11 To study Crimp tester
- 12 To study Fabric abrasion
- 13 To study Bursting strength of fabrics
- 14 Tearing strength of fabrics

Learning Resources:-

Text Books:

- 1 Principles of Textile Testing by J.E.Booth, Butter worth publication
- 2 Textile Testing by P.Angappan

References:

- 1 Handbook of Textile Testing by Grover and Hamby John Wiley Eastern Pvt. Publication, New Delhi.
- 2 Textile Testing by John H. Skinkle, D.E. Taraporewala Sons & Co. Pvt. Ltd.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Garment Technology
Subject Code : 136TM55E1

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Term work		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	0	0	3	80	32	20	100	40	-	-	-	-	-	-	100

Rationale:

With increasing demand of readymade garments the need for personnel in the garment industry is increasing day by day. The subject garment technology is therefore included and it is kept in V semester. This would give the students necessary knowledge for working in garment industry. In this subject important areas like merchandising are dealt with in good details. This will help the students may perhaps enable the students to go for self-employment.

Syllabus

No	Topic	Contents	L	M
Section I				
1	Marker planning	The complete process of creating fashion designs. (a) Basic Croqui (b) All basic sketching. Drafting-Infant-women- men's wear. Pattern making – changes in basic draft. Grading of garments- knowledge for manufacturing units.	10	14
2	Spreading and Cutting	Workroom situation-stages from raw material to final garment. Methods of spreading, Spreading equipments – Computerized spreaders – Marker making –Marker efficiency – Factors affecting marker efficiency – Marker duplicating methods – Computer aided marker making. Introduction to cutting machines – Types and functions of cutting machines – straight knife, round knife,band knife, cutting machines – Notches, drills, die cutting machines – Computerized cutting machines –maintenance of cutting machines – common defects in cutting & their remedies.	08	12
3	Inventory used	Labels and motifs , Linings, Interlinings, wadding, lace, braid and elastic, Hook and loop fastening, Seam binding, Shoulder pad, Eyelets and laces, Zip fasteners, Buttons, Types of buttons.	04	08
4	Embroidery	Introduction, Significance, Classifications, Hand embroidery, Machine embroidery, Types of stitches etc.	04	06
Section II				
4	Sewing	Properties of seams, Seams types, stitch types, Sewing Machine Feed Mechanisms, Sewing Machine needle, Sewing thread, Thread properties and seam performance, Sewing problems, Thread packages, Testing for sewability and tailorability.	10	15

5	Pressing and Alternative methods of joining the material	Classification, components of Pressing, machinery and equipments like. Hand irons, dry iron, electric steam iron, under pressing, top pressing, scissors press, Steam dolly, Fusing Technology: Construction of Fusibles, Types of fusibile, Fusing processes, quality control.	06	10
6	Garment Finishing and Inspection	Attaching buttons, marking, sewing labels, cleaning, final touch, fitting quality, live models, measurements, quality standards.	04	07
7	Production Management	Manual systems, making through, section system, progressive bundle system, straight line system, mechanical transport systems, selective conveyor belt system, unit production system, quick response sewing system.	04	08
		Total	48	80

Learning Resources:-

Text Books:

1. The Technology of Clothing Manufacture – Harold Carr and Barbara Latham
2. More Dress Pattern Designing – Natallie Bray

REFERENCES

- 1) Garment Technology for fashion designers by Gerry Cooklin
- 2) Introduction to clothing Manufacturing by Gerry Cooklin
- 3) Clothing construction and wardrobe planning by Dora S. Lewin, Mabel Goode Bowers, Manetta Knttunen — The Macmillan co New York
- 4) Garment Technology by Dr. V.Subramaniam — Winter School booklets 1990

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Advanced cloth structure
Subject Code : 136TM55E2

Teaching and Examination Scheme:

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
3	0	0	3	80	32	20	100	40	-	-	-	-	-	-	100

Rationale:

To objective of the subject in to make students familiar with Jacquard designs and some advance designs like Double cloth, Tapestry Brocade, Leno, Madras Muslin, Lappet and Swivel Weaving. Some of these structures are used in furnishing, upholstery and technical textiles. Knowledge of these structures helps the student in better understanding various aspects of textiles. In second section various warp and weft pile structures are studied in detail. During practical students analyses above structures which help them in better understanding of the subject.

Syllabus

Part I:- Theory

No.	Topic	Contents	Hours	Marks
1	Extra Warp and Extra weft weaves	Extra thread figuring fabrics: Extra Warp, Extra Weft. Combination weaves their construction and characteristics.	8	12
2	Double Cloth	Classification of double cloth, self stitched double cloth, construction of double cloth with changing boxes at one side only. Reversible double cloth, beaming and drafting of self stitched double cloth, selection of suitable stitching positions, Wadded double cloth - Weft wadded double cloth, warp wadded double cloth. Center stitched double cloth, center warp stitching, center weft stitching. Interchanging double cloth - effect due to changes in the position of separating lift with continuous one and one colour arrangement.	10	18
3	Tapestry structures	Simple weft faced tapestry - two weft tapestry structure, three weft and four weft tapestry.	6	10

Section II				
4	Damask and Brocade	Damask Reversible and non-reversible damask. Types of jacquards used for producing damask. Details study of self-twill jacquard. Brocade - figured warp rib brocade, constructional details of figured warp rib brocade, rib design produced with 2 colours of warp.	6	10
5	Leno weaves	Leno weaving with flat steel doup with an eye. Double doup, counter leno, special lifts of standard ends, Russian Cords, net leno, leno combined with other weaves and plain twill and sateen, simultaneous top and	6	10

		bottom douping, Leno weaving with flat steel slotted doup. Simple figures like twill, diamond effect with slotted doup.		
6	Madras Muslin	Introduction to Madras Muslin structure, Design, draft and peg plan of the same. Mechanisms required for producing these structures.	6	10
7	Weft pile structures	Classification of velveteen, All over or plain velveteen. Plain back velveteen length of pile, density of pile, changing the density of pile, fast pile structure, twill-back velveteen, weft plushes, corded velveteen.	6	10
		Total	48	80

Text Books:

1. Watson's Textile Desing & Colour by Grosicki, Woodhead Textiles, (Seventh Edition), 1977.
2. Watson's advanced Textile Design : Compound woven structures, Edited by Z. Grosicki, Woodhead Textile Series No. 2, 1975.
3. Woven cloth construction by R. Marks and A. T. C. Robinson
4. Fabric Structure and Design by N. Gokarneshan, New Age International Publications, New Delhi, 2004

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Marketing Management
Subject Code : 136TM55E3

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme											Total Marks
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max	Min	
3	0	-	3	80	32	20	100	40	-	-	-	-	-	-	100

Rationale:

There are fairly good openings in the field of marketing nowadays. This elective subject deals with principles of marketing management. This will help the students take up marketing career.

Objectives:

Learn in details the marketing management concepts.

Syllabus

Sr No	Topic	Contents	L	M
1	Marketing Management	Definition, Marketing Concepts. Basics in Marketing Management.	02	04
2	Consumer Buying Behaviour	Factors affecting behaviour, buying process.	03	04
3	Organizational Buying Behaviour	Factors affecting behaviour, buying process.	03	04
4	Marketing Mix	Marketing mix variables, environmental variables.	03	04
5	Product	Product, product development, product life cycle, product mix, product line, branding, packaging, labelling.	03	06
6	Pricing	Pricing methods, pricing structure. Brand value	02	04
7	Place	Channel, physical distribution.	02	04
8	Promotion	Advertising, sales promotion, personal selling, public relations.	03	05
9	Marketing Research	Research for marketing information. Scope, process and characteristics of good marketing research.	03	05
Section II				
10	Marketing Planning	Strategic marketing, marketing process, marketing plan.	04	06
11	Marketing environment	Company's micro-environment and macro environment.	04	06
12	Forecasting	Forecasting market future demand, techniques of forecasting. Law of demand and supply.	04	08
13	Market segmentation	Market segmentation, target selection and market positioning.	04	07
14	Marketing Organization Product	Functional, geographic, matrix organization.	04	06

15	Controlling Marketing Performance	Annual plan control, profitability control, efficiency control and strategic control.	04	07
		Total	48	80

Learning Resources:-

Text Books:

1. Marketing Management – Philip Kotler.
2. Marketing Management – Concepts and Cases – Dholakia

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Project-I
Subject Code : 136TM56

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Practical		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
-	-	2	-	-	-	-	-	-	-	-	-	25	10	25	

Rationale:

The students are expected to take up any subject related to textiles and study it in detail and make a presentation on their plan of action. In the next semester provision is made for the students to conduct a study or fabricate the elements if necessary and present them as a continuation of their project.

Objectives:

The students must be able to independently choose a certain topic, collect materials related to it and present a project report.

Syllabus

- 1) Creating awareness about various research magazine and periodicals.
- 2) Study how to do the reference work for the further reading.
- 3) Doing the reference work.
- 4) Presentation of project work.
- 5) Submission of project thesis.

Course Name : Diploma in Textile Manufacture
Course Code : DTM
Semester : Fifth
Subject Title : Industrial Organization and Management
Subject Code : 136HM57

Teaching and Examination Scheme:–

Teaching Scheme			Paper Hours	Examination Scheme										Total Marks	
L	T	P		Theory		Test	Total		Pract.		Oral		Termwork		
				Max	Min		Max	Min	Max	Min	Max	Min	Max		Min
2	-	-	-	-	-	-	-	-	-	-	-	-	25	10	25

Rationale:

Students of textile manufacture diploma on completion of the course join industry in supervisory positions, where they are responsible for decision making, leading, motivating and controlling the subordinates. This subject aims at exposing them to theory and practice related to these through lectures, seminars and case studies.

Objectives:

- To develop in students the ability to understand and assess the organizational environment.
- To expose them to the planning and decision making process.
- To develop in them the understanding of leadership, communication and motivational practices.

Syllabus

Sr No	Topic	Contents	Hrs*
1	Management	Definition, functions, levels, skills.	2
2	Planning	Process, merits, limitations	4
3	Decision making	Decision making models, group decision making	4
4	Organizing	Span of management, delegation of authority, decentralization of authority, departmentation.	8
5	Communication	Upward, downward, formal and informal communication. Barriers to effective communication and ways to overcome them	4
6	Motivation	Maslow's and Herzberg's theories. Incentives.	4
7	Leadership	Autocratic and democratic styles, Situational leadership. Leadership continuum and managerial grid.	4
8	Controlling	Controlling Process, Requirements of a good control system	2
		Total	32

* Hrs includes lecture time and assignment time

Assignments:

Six Group and individual assignments on the above topics:

- 1 Three to four case studies.
- 2 One seminar.
- 3 One group discussion.

Learning Resources:-

Text books:

Industrial and business management: Telsang, M.T. S.Chand, 1998 ed,

References:

Essentials of Management: Koontz and Weihrich, McGraw Hill, fifth edition